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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/783,725  | 02/14/2001  | Thomas R. Firman     | 10591-003008        | 6557'            |
| 26161   | 7590        | 07/28/2006           | EXAMINER            |                  |
| FISH & RICHARDSON PC<br>P.O. BOX 1022<br>MINNEAPOLIS, MN 55440-1022 |             |                      | ARMSTRONG, ANGELA A |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2626                |                  |
| DATE MAILED: 07/28/2006   |             |                      |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |  |  |  |
|------------------------------|--|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/783,725   | <b>Applicant(s)</b><br>FIRMAN, THOMAS R. |  |
|                              | <b>Examiner</b><br>Angela A. Armstrong | <b>Art Unit</b><br>2626                  |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 4-57 is/are pending in the application.
- 4a) Of the above claim(s) 4-5 and 16-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-15 and 35-59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 13, 2006, has been entered.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 14 and 58-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldhor (US Patent No. 5,231,670) in view of Porter (US Patent 4,829,576).
3. Regarding claim 14, Goldhor teaches a system and or method for generating text from a voice input that divides the processing of each speech event into a dictation event and a text event. The teachings of Goldhor provide for the system and method to process both simple spoken words as well as spoken commands and to provide the necessary text generation in response to the spoken words or to execute an appropriate function in response to a command. Speech recognition includes the ability to distinguish between dictation text and commands. (Figure 1, elements 12, 14, 16, 18, "recognizer"; col. 1, lines 17-20 55-68; col. 2, lines 1-2; col. 4, lines 10-13; col. 5, lines 40-55; col. 6, lines 46-48). Which reads on a voice user interface device comprising means for converting a voiced utterance into a corresponding signal as an

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input to a computer or into an internal command to the interface device and means for recognizing the voiced utterance as either one to be converted to said signal or as one to be converted to said command, since the system specifically receives the input speech and determines if the speech is for text or is a command and makes changes to new sets of utterances when creating new dictation events or new text events. Goldhor does not provide for converting a voiced utterance being configured to change the set of voiced utterances upon receipt of the internal command. Porter discloses a voice recognition system for providing speech recognition systems, which recognize commands for use with a text editor. The recognition system is used with command words for finding files, searching for text strings or selecting menu choices (Col. 7, line 33 to col. 8, line 31; col. 18, line 44 to col. 21, line 5; Figure 41; col. 21, line 39 to col. 22, line 34). Porter specifically teaches the system is designed so as to improve the ease and reliability with which humans can control computer systems which deal with elements contained in data structures, such as words in text files or names in a database (col. 2, lines 15-27). It would have been obvious to one of ordinary skill at the time of the invention to modify the system of Goldhor to implement changing a set of voiced utterances to be recognized based on an input command as taught by Porter, for the purpose of improving the ease and reliability of the recognizer, as also suggested by Porter.

4. Regarding claim 59, Goldhor discloses a system and or method for generating text from a voice input that divides the processing of each speech event into a dictation event and a text event. The teachings of Goldhor provide for the system and method to process both simple spoken words as well as spoken commands and to provide the necessary text generation in response to the spoken words or to execute an appropriate function in response to a command.

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Speech recognition includes the ability to distinguish between dictation text and commands. (Figure 1, elements 12, 14, 16, 18, "recognizer"; col. 1, lines 17-20 55-68; col. 2, lines 1-2; col. 4, lines 10-13; col. 5, lines 40-55; col. 6, lines 46-48). Which reads on a voice user interface device comprising means for converting a voiced utterance into a corresponding signal as an input to a computer, means for converting a voiced utterance into a corresponding internal command to the voice user interface device to cause the voice user interface device to provide (a) which voiced utterances belong to the set of voiced utterances the device is capable of recognizing the set of voiced utterances being a subset of all possible voiced utterances, and (b) the set of signals and internal commands that correspond to each member of the set of voiced utterances the voice user interface device is capable of recognizing; and means for recognizing a voiced utterance as either one to be converted to a signal or as one to be converted to an internal command, since the system specifically receives the input speech and determines if the speech is for text or is a command and makes changes to new sets of utterances when creating new dictation events or new text events. Goldhor does not provide for changing the set of voiced utterances that belongs to the set the device is capable of recognizing. Porter discloses a voice recognition system for providing speech recognition systems, which recognize commands for use with a text editor. The recognition system is used with command words for finding files, searching for text strings or selecting menu choices (Col. 7, line 33 to col. 8, line 31; col. 18, line 44 to col. 21, line 5; Figure 41; col. 21, line 39 to col. 22, line 34). Porter specifically teaches the system is designed so as to improve the ease and reliability with which humans can control computer systems which deal with elements contained in data structures, such as words in text files or names in a database (col. 2, lines 15-27). It would have been obvious to one of ordinary

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skill at the time of the invention to modify the system of Goldhor to implement changing a set of voiced utterances to be recognized based on an input command as taught by Porter, for the purpose of improving the ease and reliability of the recognizer, as also suggested by Porter.

5. Regarding claim 58, Goldhor does not teach that the adjusting of the voiced utterances includes the set of voiced utterances the device is configured to convert is adjusted by adding an additional voiced utterance to the set. However, adjusting a set of voiced utterances by adding an additional voiced utterance to a set was well known in the art so as to allow the user to upgrade/update system vocabularies as the user expands the applications and functionality of the voice user interface device, and it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Goldhor to provide for adjusting the set of accepted voiced utterances by adding an additional voice utterance to the set, for the purpose of providing upgraded/updated vocabularies so as to expand functionality and capabilities of the interface.

6. Claims 6-13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldhor (US Patent No. 5,231,670) in view of Torres (US Patent No. 4,821,211).

7. Regarding claim 6, Goldhor teaches a voice user interface system for producing input to a computer, and a program for execution on said computer, a state of said program, said configuration being associated with control of said program, comprising a voice recognizer for recognizing a voiced utterance and for providing corresponding signals as input to said computer (Figure 1, elements 12, 14, 16, 18, "recognizer"; col. 1, lines 17-20 55-68; col. 2, lines 1-2; col. 4, lines 10-13; col. 6, lines 46-48), and a converter for converting said voiced utterance into a

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command string including a command directing motion of said pointer relative to said configuration (col. 1, lines 17-20 55-68; col. 2, lines 1-2; col. 4, lines 10-13; col. 6, lines 46-48).

Goldhor does not specifically teach mimicking mouse commands or various details related to the display of the graphical user interface. Torres teaches a method and apparatus for Navigating among program menus using a graphical menu tree and provides a description of well known cursor functionality and graphical user interface display for permitting computer users to access computer applications and manage windows by graphically designating graphic representations (which reads on “graphical elements”) and manipulating those graphical representations (“graphical elements”) via a graphic pointing device or voice interaction (Figures 1-3 and 4D; col. 3, line 64 to col. 5, line 56).

It would have been obvious to one of ordinary skill at the time of the invention to provide for the manipulation of the movement of the cursor via vocal interaction as taught by Torres, in the system of Goldhor, because this would enable a person who is not physically able to move the cursor to be able to move the cursor or access and control icons/applications via vocal commands.

Regarding claim 7, Goldhor teaches command string further comprises a command to said program at (col. 1, lines 17-20 55-68; col. 2, lines 1-2; col. 4, lines 10-13; col. 6, lines 46-48).

Regarding claim 8, similar limitations to claim 6 are discussed above. Additionally, Goldhor teaches converting based on a state of the subsystem comprising said voice recognizer and said converter at col. 1, lines 55-60; col. 8, lines 24-27, as converting a voiced utterance to control an application.

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Regarding claim 9, similar limitations to claim 6 are discussed above. Additionally, Goldhor teaches converting based on a state of said program at col. 1, lines 55-60; col. 8, lines 24-27, as converting a voiced utterance to control an application.

Regarding claim 10, Goldhor teaches converting voiced utterances to text at col. 1, lines 55-57.

Regarding claim 11, Goldhor teaches using keyboard as the alternative at col. 1, lines 67-68, col. 2, lines 1-2; col. 6, lines 46-48.

Regarding claim 12, Goldhor does not specifically teach an event queue. However, providing an event queue in a computer operating system was well known in the art so as monitor and maintain system processing for allowing for a multi-tasking system.

It would have been obvious to one of ordinary skill at the time of the invention to provide an event queue in the operating system as was well known in the art, in the system of Goldhor, for the purpose of providing for a reliable and efficient multi-tasking operating system.

Regarding claim 13, similar limitations to claim 6 are discussed above. Additionally, Goldhor teaches pointer movement continued unabated until stopped by an action of the user at col. 1, lines 67-68, col. 2, lines 1-2 and col. 6, lines 46-48, since using the voice input as equivalent to keyboard or mouse input.

Regarding claim 15, similar limitations to claims 6-9 are discussed above. Additionally, Goldhor teaches mapping from a member of said set of internal representations to a member of said set of output strings used by said converter at col. 1, lines 27-34, col. 5, lines 3-5, 61-66; col. 6, lines 18-26, as permitting multiple recognizer representations to be mapped to a single command.



8. Claims 35-40 and 52-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torres (US Patent No. 4,821,211).

9. Regarding claim 35, Torres teaches a method and apparatus for navigating among program menus using a graphical menu tree and provides a description of well known cursor functionality and graphical user interface display for permitting computer users to access computer applications and manage windows by graphically designating graphic representations and manipulating those graphical representations via a graphic pointing device or voice interaction (Figures 1-3 and 4D; col. 3, line 64 to col. 5, line 56), which reads on a method for use with a machine having a graphical user interface and an application program, the method comprising the graphical user interface being controlled at least in part by a control signal that can be invoked in response to the pointing device and the graphical user interface enabling a user to launch the application program and receiving a voice utterance from a user.

Torres does not specifically disclose launching the application program in response to the received voiced utterance without invoking the control signal. However, the teachings of Torres specifically disclose using voice interaction to control system functionality (col. 4, lines 16-17).

It would have been obvious to one of ordinary skill at the time of the invention to use the system of Torres to launch application programs via voice control and interaction so as to provide computer access to application programs for physically challenged individuals.

Regarding claim 36, Torres teaches an operating system with a graphical interface at (col. 4, lines 3-6).

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Regarding claim 37, Torres teaches the graphical user interface is shown on a display at col. 3, line 67.

Regarding claim 38, Torres teaches the machine comprises a computer (col. 4, lines 1-7).

Regarding claim 39, similar limitations to claim 35 are discussed above. Additionally Torres teaches there are multiple application programs (Figures 1-3 and 4D; col. 3, line 64 to col. 5, line 56).

Regarding claim 40, similar limitations to claim 35 are discussed above. Additionally, Torres teaches there are multiple application programs, an operating system provides the graphical user interface, the graphical user interface is shown on a display, and the machine comprises a computer (Figures 1-3 and 4D; col. 3, line 64 to col. 5, line 56),

Regarding claim 52, similar limitations to claims 35, 41 and/or 45 are discussed above. Additionally, Torres teaches selectable menu items (Figures 1-3 and 4D).

Regarding claim 53, similar limitations to claim 35 are discussed above. Additionally Torres teaches there are multiple graphical representations (Figures 1-3 and 4D; col. 3, line 64 to col. 5, line 56).

Regarding claim 54, Torres teaches the graphical user interface is shown on a display at col. 3, line 67.

Regarding claim 55, Torres teaches the machine comprises a computer (col. 4, lines 1-7).

Regarding claim 56, Torres does not specifically disclose performing a function associated with a menu item in response to a second received voiced utterance. However, the teachings of Torres describe the well-known implementation of a pointer for accessing computer applications and disclose using voice interaction to control system functionality.

It would have been obvious to one of ordinary skill at the time of the invention to use the system of Torres to provide application programs or other menu item functionality via second or additional received voiced utterances so as to provide computer access to application programs for physically challenged individuals.

Regarding claims 57, Torres teaches manipulating other graphical items includes altering size and location of a window (Figures 1-3 and 4D; col. 3, line 64 to col. 5, line 56).

10. Claims 41-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torres (US Patent No. 4,821,211) in view of Porter (US Patent No. 4,829,576).

11. Regarding claim 41, Torres teaches a method and apparatus for navigating among program menus using a graphical menu tree and provides a description of well known cursor functionality and graphical user interface display for permitting computer users to access computer applications and manage windows by graphically designating graphic representations and manipulating those graphical representations via a graphic pointing device or voice interaction (Figures 1-3 and 4D; col. 3, line 64 to col. 5, line 56), which reads on a method for use with a machine having a graphical user interface and an application program, the method comprising the graphical user interface being controlled at least in part by a control signal that can be invoked in response to the pointing device. Torres does not teach manipulating a graphical item separately from the cursor. Porter discloses a voice recognition system for providing speech recognition systems, which recognize commands for use with a text editor. The recognition system is used with command words for finding files, searching for text strings, manipulating menus so as to display a particular menu of choices (search or find file) and for the

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selection of the desired displayed command (Col. 7, line 33 to col. 8, line 31; col. 18, line 44 to col. 21, line 5; Figures 36-37 and 40-41; col. 21, line 39 to col. 22, line 34). Porter specifically teaches the system is designed so as to improve the ease and reliability with which humans can control computer systems which deal with elements contained in data structures, such as words in text files or names in a database (col. 2, lines 15-27). It would have been obvious to one of ordinary skill at the time of the invention to modify the system of Torres to implement changing a set of voiced utterances to be recognized based on an input command as taught by Porter, for the purpose of improving the ease and reliability of the recognizer, as also suggested by Porter.

Regarding claim 42, Torres teaches an operating system with a graphical interface at (col. 4, lines 1-17).

Regarding claim 43, Torres teaches the graphical user interface is shown on a display at col. 3, line 67.

Regarding claim 44, Torres teaches the machine comprises a computer (col. 4, lines 1-7).

Regarding claim 45, similar limitations to claim 41 are discussed above. Additionally Torres teaches there are multiple graphical items and manipulating the other graphical items (Figures 1-3 and 4D; col. 3, line 64 to col. 5, line 56), as various menu items, windows or graphical representations to which the user has access and control.

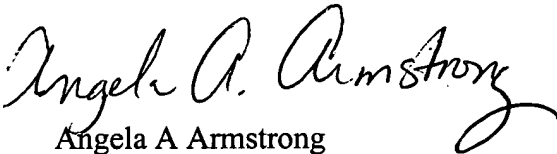
Regarding claims 46-51, Torres teaches manipulating other graphical items includes altering size and location of a window (Figures 1-3 and 4D; col. 3, line 64 to col. 5, line 56).

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela A. Armstrong whose telephone number is 571-272-7598. The examiner can normally be reached on Monday-Thursday 11:30-8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Angela A Armstrong  
Primary Examiner  
Art Unit 2626

AAA  
July 24, 2006